## ABSTRACT

A SW (70) receives an Ethernet(R) signal from an outside of areas E and F. The SW (70) selects and outputs the obtained Ethernet(R) signal to any one of APs (91a to 91e) in accordance with a network structure managed by the SW (70). The AP (91a to 91e) converts the Ethernet(R) signal to an electrical signal type wireless LAN signal, which is in turn output to a main station (10). The main station (10) frequency-multiplexes the signal output from each of the APs (91a to 91e), and converts the signal to an optical signal, which is in turn output to sub-stations (20a and 20b). The sub-station (20a and 20b) transmits the signal transmitted from the main station (10) to a terminal in the form of a wireless radio wave. Thereby, when a plurality of communication areas are present, the accommodation capacity of an AP can be effectively utilized in each communication area.